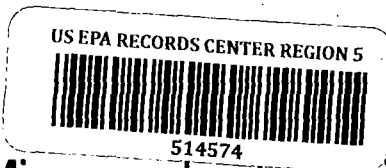
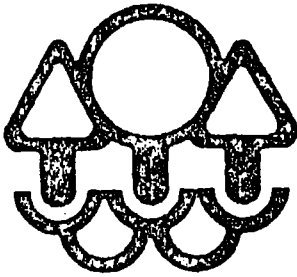


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Minnesota Pollution Control Agency

May 5, 1982

Mr. Richard E. Bartelt, Chief
Remedial Response Branch
U.S. Environmental Protection Agency
5HR-TUB
111 West Jackson Boulevard
Chicago, Illinois 60604

Dear Mr. Bartelt:

In response to your letter of March 11, 1982, and in accordance with U.S. Environmental Protection Agency's (EPA) November 30, 1981 memorandum entitled, "Verification of State Expenditures during CERCLA Credit Period," the state of Minnesota formally requests a credit verification of the state's expenditures (including those by local units of government) for work conducted at the Reilly Tar and Chemical site, St. Louis Park, Minnesota. The Minnesota Pollution Control Agency (MPCA), Minnesota Department of Health (MDH) and the cities of St. Louis Park, Minnesota and Hopkins, Minnesota are in the process of compiling a summary of expenses which have been incurred in the investigation at the above named site during the designated credit period.

However, it is anticipated that this process will be quite time consuming. Therefore, in an attempt to preserve the continuity and timing of the work already underway at the site, we have conducted a cursory examination of our records. This survey (summarized on the enclosed list), showed a substantial amount of incurred documented costs which the state considers a creditable expense. Further, this amount is in excess of the required match for current and imminent cooperative agreements at this site.

Because of the high priority and extensive amount of work planned for the site this year, the state hereby requests that the audit be performed on the documented expenses which we are able to provide at this time. As additions to our credit will certainly be requested at a later date, we will be requesting an additional audit for the Reilly Tar site, St. Louis Park, Minnesota at such times as the remainder of our expenses can be documented.

Phone: _____

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Figure 3
Option 3 - \$2 Million CA

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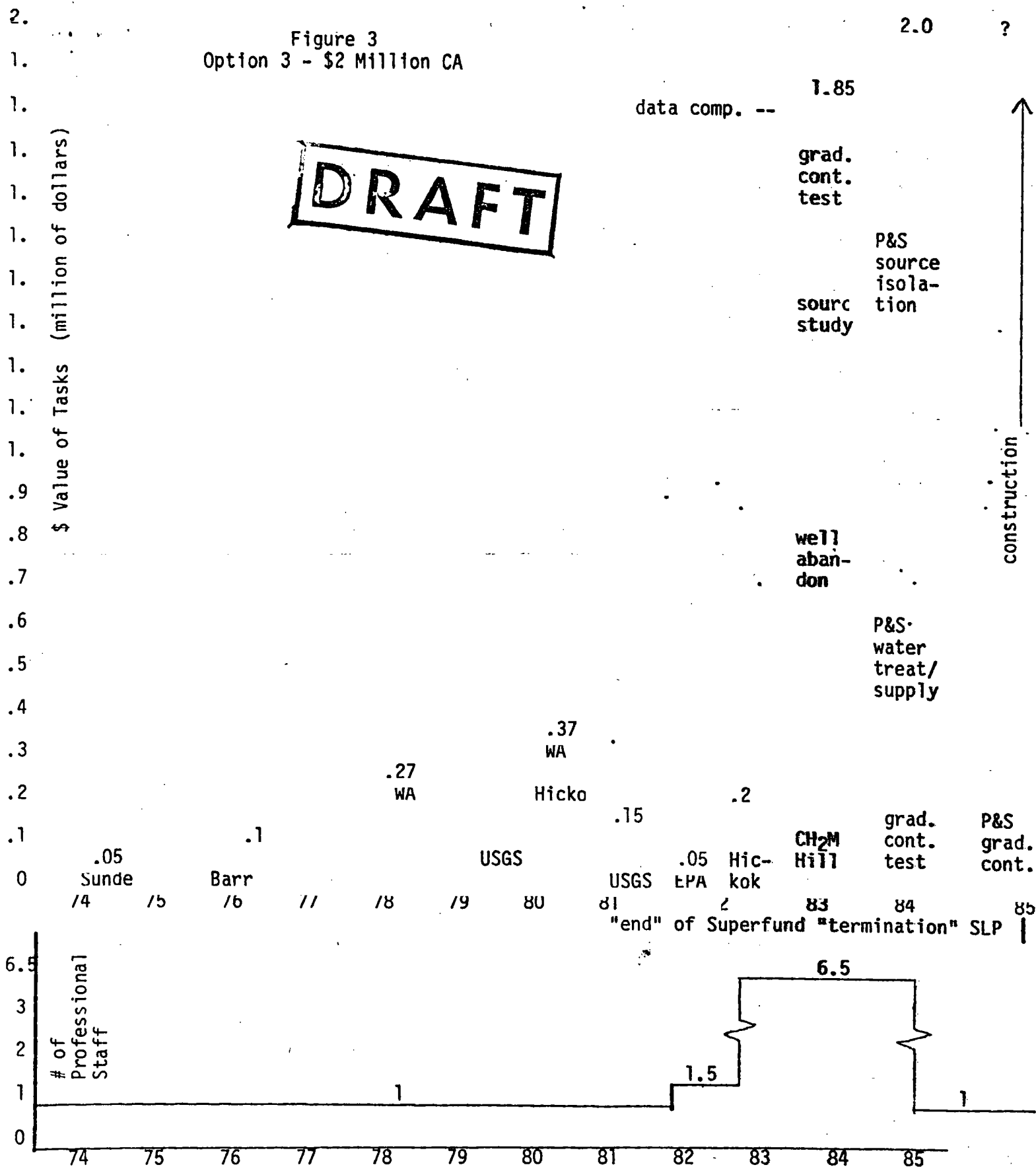
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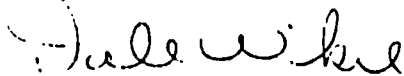


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Mr. Richard E. Bartelt
Page two

We believe that this process will, at the same time, fulfill the requirements of the EPA and preserve the continuity and timing of the work already underway at the site. If our office can provide you with more information in this matter, please contact Mr. Michael Hansel (297-3353) of my staff.

Sincerely,



Dale L. Wikre
Director
Solid and Hazardous Waste Division

DLW/MJH:sf

Enclosure

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EXPENDITURES FOR WORK CONDUCTED AT THE REILLY TAR AND
CHEMICAL SITE, ST. LOUIS PARK, MINNESOTA

State of Minnesota contract with:

	<u>AMOUNT</u>	<u>DATE</u>
Hickok and Associates	\$120,000	7-1-80
U.S. Geological Survey	\$205,000	7-1-78 to 10-1-80
Well Abandonment	\$70,000	7-1-78
Well Abandonment	\$30,000	9-1-80
Subtotal	\$425,000	

City of St. Louis Park:

Well Closure Wells #1, 2 and 9	\$10,000	1978
Rubber Packer for Well	\$5,000	1980
Drinking Water Study Hickok and Associates	\$25,000	1980
Powdered Activated Carbon Treatment Pilot Study Hickok and Associates	\$8,000	1979
Locating Abandoned Wells on Reilly Tar Site	\$5,000	1979 - 1980
Pace Laboratories, Inc., Analysis of L. A. Testing	\$2,000	1978
Monitoring Well	\$4,000	1978
Subtotal	\$59,000	
Total	\$484,000	

City of St. Louis Park, Minnesota

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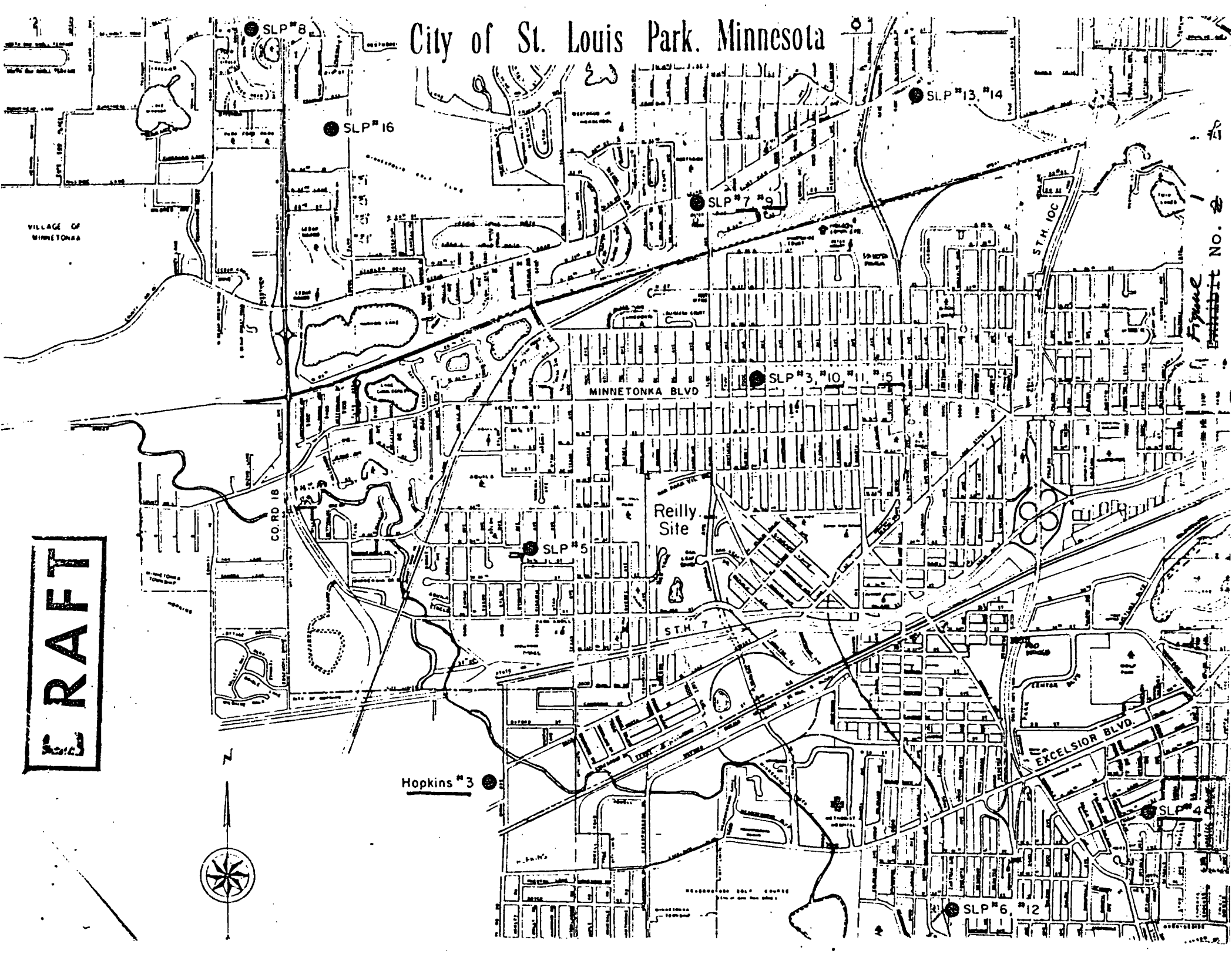
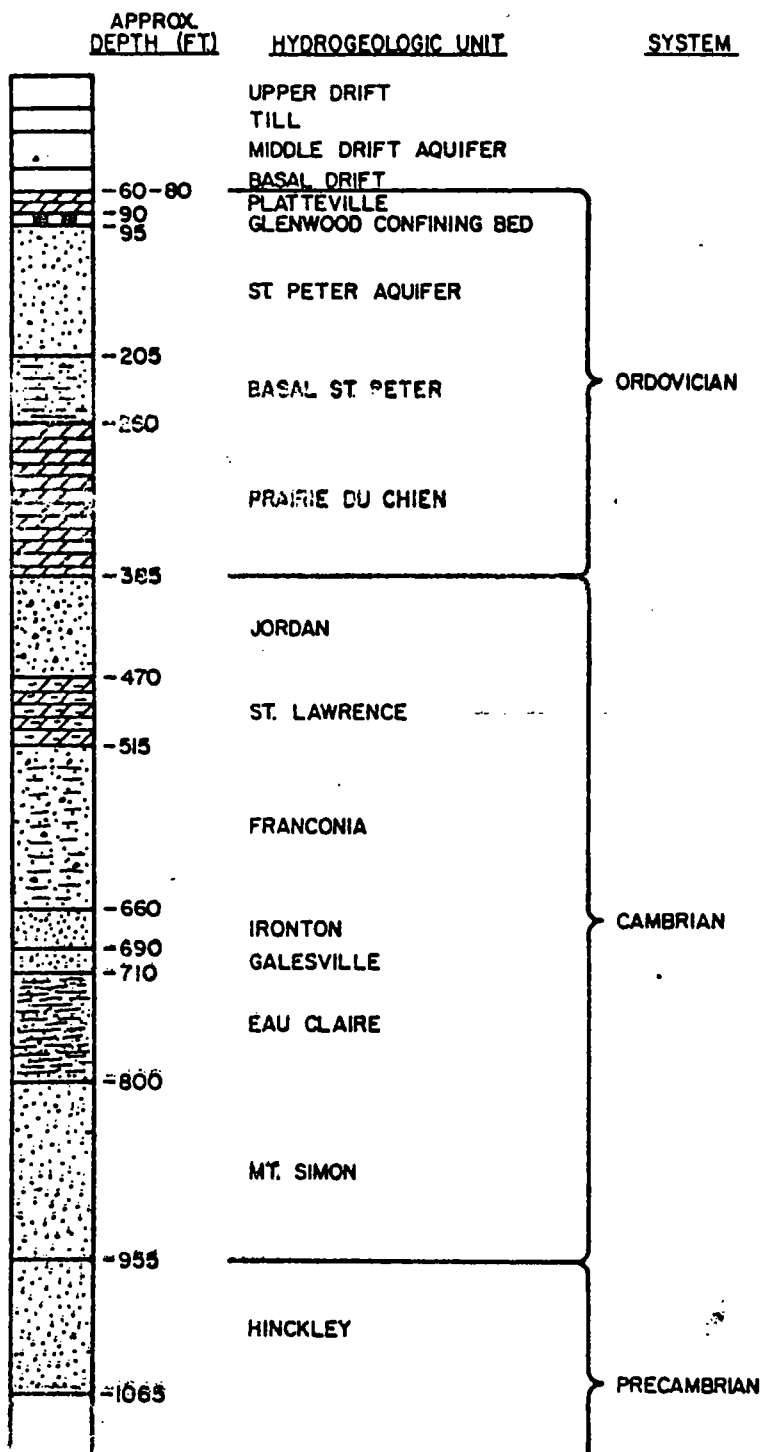


Figure
Exhibit No. 2

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MINN. DEPT. OF HEALTH

GENERALIZED STRATIGRAPHIC SEQUENCE
IN ST. LOUIS PARK AREA

E.A. HICKOK & ASSOCIATES
HYDROLOGISTS-ENGINEERS
MINNEAPOLIS-MINNESOTA

NOV. 1981

2

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PRELIMINARY
Subject to Revision

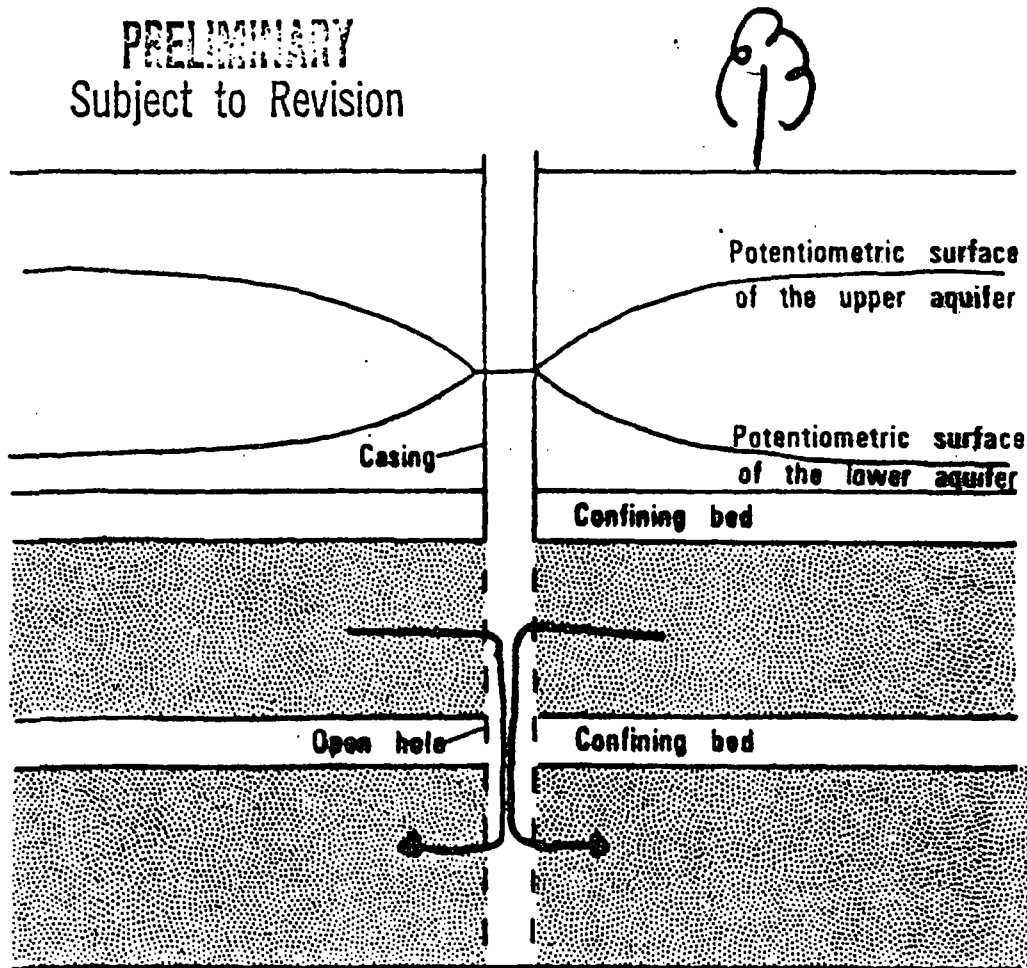


Figure 24--Schematic hydrologic section showing a well interconnecting two confined aquifers, flow through the well bore, and the effect of this flow on the potentiometric surfaces of the two aquifers

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nn. Dept. of Health

BIODEGRADATION OF PAH'S IN UNACCLIMATED
AND ACCLIMATED CULTURES**DRAFT**

<u>Compound</u>	<u>PERCENT DEGRADATION</u>	
	<u>Original Culture</u>	<u>Third Subculture</u>
Fluoranthene	0	100
Benco(a)anthracene	16	0
Chrysene	0	38
Anthracene	43	92
Pyrene	71	100

¹Patterson, J.W., and Kodukala, P.S.; "Biodegradation of Hazardous Organic Pollutants," Chemical Engineering Progress, April 1981.

Anticipated Staffing Requirements

Reilly Tar & Chemical/St. Louis Park Cooperative Agreement

I. Introduction

Concern has been expressed regarding the amount of funds in the application for a cooperative agreement (CA) for increased staff. The purpose of this memo is: 1) to show the overall goals and tasks for this project; 2) offer three alternative staffing scenarios and their output; 3) recommend that the ceiling on the CA be raised to \$2 million in order to accommodate more tasks and to hire additional staff to perform and administer these tasks.

II. Background

On May 25, 1982 the Agency Board authorized the staff to negotiate and enter into a CA with the U.S. Environmental Protection Agency (EPA) for up to \$800,000. These funds would be used for two tasks; 1) to abandon or reconstruct multi-aquifer wells; and 2) to study the source materials on the site to determine techniques to treat, remove or contain those materials. Subsequent negotiations with EPA uncovered additional tasks to be performed. The proposed agenda item for the July 27, 1982 Board meeting more fully discusses these changes.

III. Goals, Tasks and Clientele

In order to understand the need for increased funds, it is important to put the goals and tasks of this case in perspective. Table 1 (attached), taken from the draft CA, shows the two overall goals for the project, and the five "operable units" (EPA jargon) which will be constructed to remedy the situation at Reilly Tar. Table 1 also shows the tasks to be accomplished and their status.

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The clients on this project and their timelines also need to be kept in mind. Two of our clients, the city of St. Louis Park and the EPA, have timelines which they would like to observe. St. Louis Park, in their "Terminating an Endless Search," have indicated that they expect their water supply situation corrected by 1985. In that same year, Superfund legislation will "sunset." While it is unlikely that Superfund monies will dry up altogether, it is conceivable that funds could become more difficult to obtain, as has happened with the construction grants program.

Accomplishing those tasks by the projected completion dates assumes the addition of an additional five professional staff. (Table 2 proposes staff-hours according to the tasks in Table 1). However, two other additional staffing scenarios and their output, are presented below, and their advantages and disadvantages discussed.

IV. Option 1 - Submit Application for \$0.8 Million CA and Maintain Staff at Current Level

The first option assumes that output will remain at or near current levels and that no additional staff will be added. Figure 1 shows past staffing patterns and value of tasks/contracts, and projects these over the next 3½ years. In the past, the level of tasks/contracts has been \$0.25-0.3 million and, there has been generally only one full-time staff assigned to the project. It is anticipated that \$0.5 million worth of tasks/contracts can be accomplished and administered in each of the next three years with the current level of 1½ staff. It should be noted that a \$0.8 million CA includes no money for existing staff.

Advantages and disadvantages of this option are:

Advantages

- there will be no need for additional Board authorization
- there will be no additional staff
- well abandonment (Op.Un. 1) will be finished by 1985
- grad. control system (Op.Un. 2) test and P&S will be finished by 1985

Disadvantages

- grad. control (Op.Un. 2) construction not finished
- water treatment/supply (Op.Un. 3&4) will not be finished
- source isolation (Op.Un. 5) will not be finished
- state credit for Reilly Tar will not be used up and money may be limited for future work
- staff will be overworked
- no new system or staff will be developed for work at other sites
- clients will be displeased, especially EPA and city

V. Option 2 - Submit an Application for \$1 million CA and Double Existing Staff

A second option would be to double output and double staff to a total of three full-time staff, by adding ½ time hydrologist, ½ time soil scientist, ½ time community relations coordinator. Figure 2 shows past staffing patterns and projects future accomplishments. It is anticipated that \$1 million worth of tasks/contracts can be accomplished and administered in each of the next three years with three professional staff.

Advantages and disadvantages of this option are:

Advantages

- well abandonment (Op.Un. 1) will be finished by 1985
- grad. control system (Op.Un. 2) P&S will be finished by 1985
- water treat/supply (Op.Un. 3&4) P&S will be finished by 1985
- source isolation (Op.Un. 5) study will be finished by 1985

Disadvantages

- need to return to Board for additional authorization
- must add staff - logistical problems
- source isolation (Op.Un. 5) P&S and construction not finished
- grad. control (Op.Un. 2) construction not finished
- water treat/supply (Op. Un. 3&4) construction not finished
- source isolation (Op. Un. 5) construction will not be finished
- state credit will not be used up, and money may be limited for future
- no new system will be developed for work at other sites
- clients will be displeased

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VI. Option 3 - Submit an Application for a \$2 million CA and Expand Staff to 6.5

A third option, and the one contained in the proposed July 27 Board item, would be to quadruple work output and add an additional five professional staff and 1.5 secretarial staff. Table 2 details this staff and their duties, while Figure 3 shows past staffing patterns and projects future accomplishments. It is anticipated that \$2 million worth of tasks/contracts could be accomplished in each of the next three years with a total of 6.5 professional staff.

Advantages and disadvantages of this option are:

Advantages

- well abandonment (Op.Un. 1)
will be finished by 1985
- grad. control system (Op.Un. 2)
will be finished by 1985
- water treat/supply (Op.Un. 3&4)
will be finished by 1985
- source isolation (Op.Un. 5) P&S
will be finished by 1985 and
construction initiated
- system and staff will be developed
to be used at other sites
- clients will be pleased

Disadvantages

- need to return to Board for
additional authorization
- must add staff - logistics
problem

VII. Recommendations

In order to accomplish the tasks shown in Table 1 by the project completion date, and in the time frame of our clients, it is recommended that five additional staff be added as described in Option 3 and Table 2. If additional staff cannot be added, work will proceed at a slower rate, and with the disadvantages described above. This could endanger future fundings, and relationships with clients. The additional staff, besides completing the work on Reilly Tar, will develop systems and expertise which can be applied to other hazardous waste sites.

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TABLE I

Goal	Operable Unit	Tasks	Funding	Status	Projected Completion Date
A. Contain and clean up ground water contamination and provide drinking water for St. Louis Park (SLP) and Hopkins (Hop)	1. Abandon multi-aquifer wells	a) Well 23 (old Reilly well)	RCRA reprogram	in progress	9/82
		b) Well 105 (sugar beet well)	RCRA reprogram	*	9/82
		c) Well Survey	RCRA reprogram	in progress	9/82
		d) Top 10 priority wells plus others	this grant	this grant	11/83
	2. Install gradient control system	a) Facility planning (Hickok '81)	MN	finished	11/81
		b) Review by USGS	EPA MOU	in progress	7/82
		c) Modeling and testing	this grant	this grant	1/83
		d) Data compilation and modeling	this grant	this grant	1/83
		e) Plans and Specs	--	(future CA)	3/84
		f) Construction	--	(future CA)	11/84

*Will be completed under RCRA reprogram monies if sufficient funds are available after completing Well 23, well survey and water treatment study. If funds are not available, Well 105 will be completed under this grant.

TABLE I
(cont.)

Goal	Operable Unit	Tasks	Funding	Status	Projected Completion Date
A. Continued	3. Treat/dispose water from gradient control system	a) Facility planning (water treatment study CH ₂ M Hill)	RCRA reprogram	in progress	7/83
		b) Plans and Specs	--	(future CA)	3/84
		c) Construction	--	(future CA)	4/84
	4. Provide drinking water for SLP and Hop	a) SLP interconnects with Plymouth	SLP	finished	6/82
		b) SLP drills new Hinkley well #17	SLP	in progress	9/82
		c) SLP negotiates interconnections with Minnetonka and Mpls.	SLP	in progress	--
		d) Facility planning (water treatment study) (same as A.3.a.)	RCRA reprogram	in progress	7/83
		e) Plans and Specs	--	(future CA)	3/84
		f) Construction	--	(future CA)	11/84

TABLE I
(cont.)

Goal	Operable Unit	Tasks	Funding	Status	Projected Completion Date
B. Contain, treat and/or remove the source materials and restore the site to protect public health.	5. Treat/contain/remove source material.	a) Compile soil logs and analyze existing cores	this grant	this grant	9/83
		b) Conduct borings to define site	EPA enforcement	in progress	10/82
		c) Facility planning (source materials study)	this grant	this grant	9/83
		d) Plans and Specs	--	(future CA)	4/84
		e) Construction	--	(future CA)	11/84

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Table 2
Staff Hours and Tasks

Operable Unit	1	2	3	4	5	CR
Sen. Eng. (E)			100		250	200
Hydrologist ($\frac{1}{2}$)(E)	300	150			50	50
Hydrologist	100	1,000		50	400	50
Grad. Eng. ($\frac{1}{2}$)			300	100	400	
Soil Scientist					1,550	50
Data Processor		1,000			400	200
Community Relations Coordinator (CRC)						1,500
TOTALS	400	2,150	400	150	3,050	2,050

Administrative Tasks

Operable Unit	1	2	3	4	5	CR
Sen. Eng.	200	200	300	50	300	
Hydrologist ($\frac{1}{2}$)(E)	250					
CRC						100
First Line (0.1) Supervisor						
First Line Supervisor (0.1)						
TOTALS	450	200	300	50	300	100

Table 3
Community Relations

<u>Task</u>	<u>Hours</u>
Working Group Meetings (22 meetings X 1 day)	200
Advisory Committee Meeting (20 meetings X 1.5 days)	300
Public Meetings (5 meetings X 8 days)	350
Newsletters (30 newsletters at 0.5 days)	150
Fact Sheets (30 fact sheets at 0.5 days)	150
Community Interaction	500
AV Preparation	<u>400</u>
TOTAL	2,050

Figure 1
Option 1 - \$0.8 Million CA

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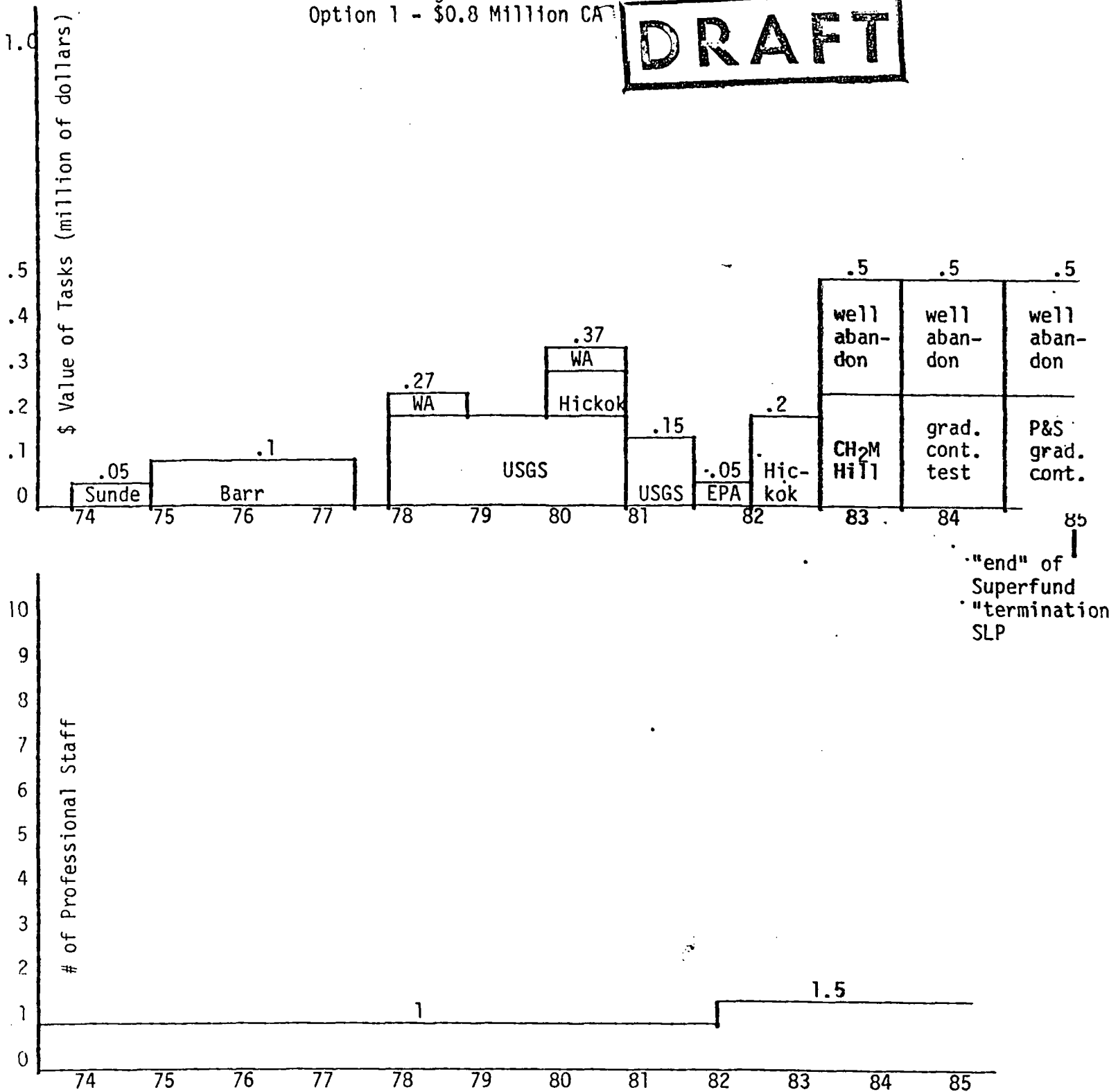


Figure 2
Option 2 - \$1 Million CA

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